Residual Risk Program

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Air Toxics Program

- 1990 Clean Air Act Amendments, Sec. 112
- Characterize, prioritize, and equitably address the impacts of ***hazardous air pollutants*** on public health and the environment through a combination of:
  - ~ Regulatory approaches
  - ~ Voluntary partnerships
  - ~ Ongoing research and assessments
  - ~ Educational outreach

Air Toxics Program Components

- Source-specific standards and sector-based standards (e.g., MACT, Residual Risk)
- Initiatives to focus on multimedia and cumulative risks (e.g., Urban Air Program, Great Waters, Mercury initiatives)
- Educational Outreach
- National Air Toxics Assessments (NATA)

Air Toxics Program in Transition

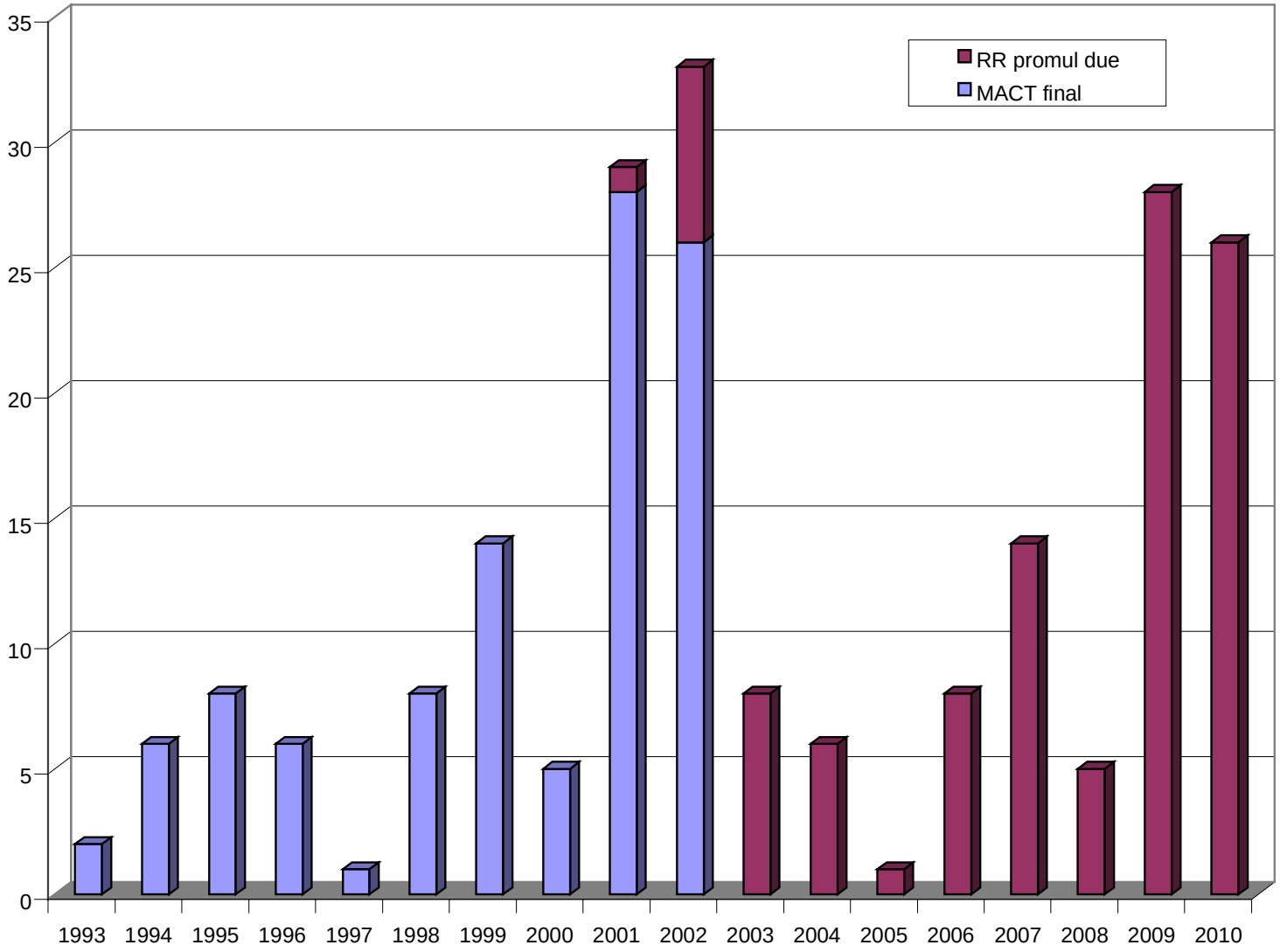
- **Phase I: Technology-based program**

  Maximum Achievable Control Technology (MACT) standards

- **Phase II: Risk-based program**

  Residual Risk standards

Transition from MACT to RR



Residual Risk Philosophy

We will look at residual risk:

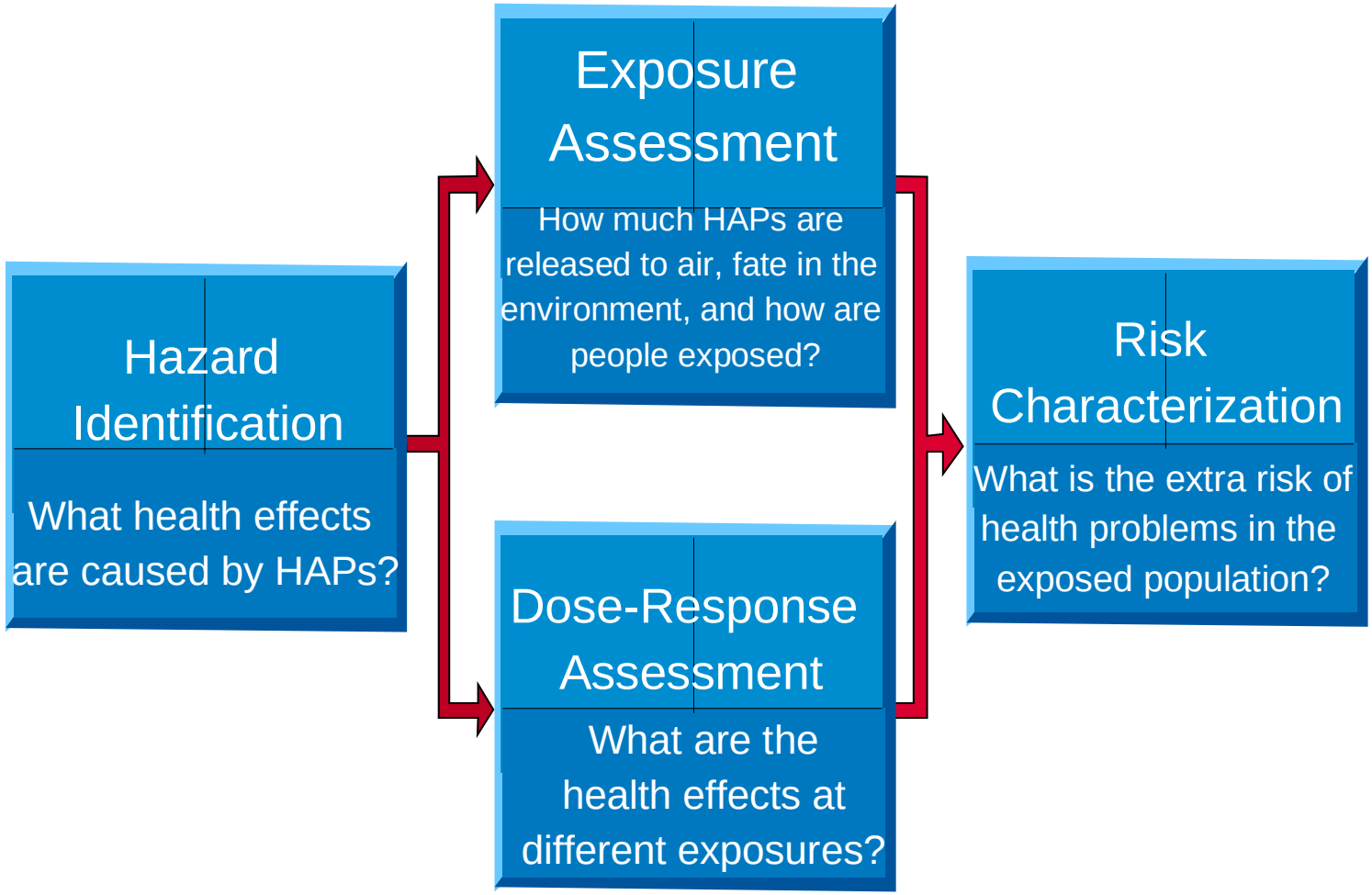
- source category by source category
- and by individual facilities within source category

We will attempt to look at risks holistically:

- including multiple MACTs at a facility
- including unregulated emission points, pollutants
- including multipathway risks, where appropriate
- including background, where appropriate

Our goal is to regulate only where there is a risk-based need

4-Step Risk Assessment Process

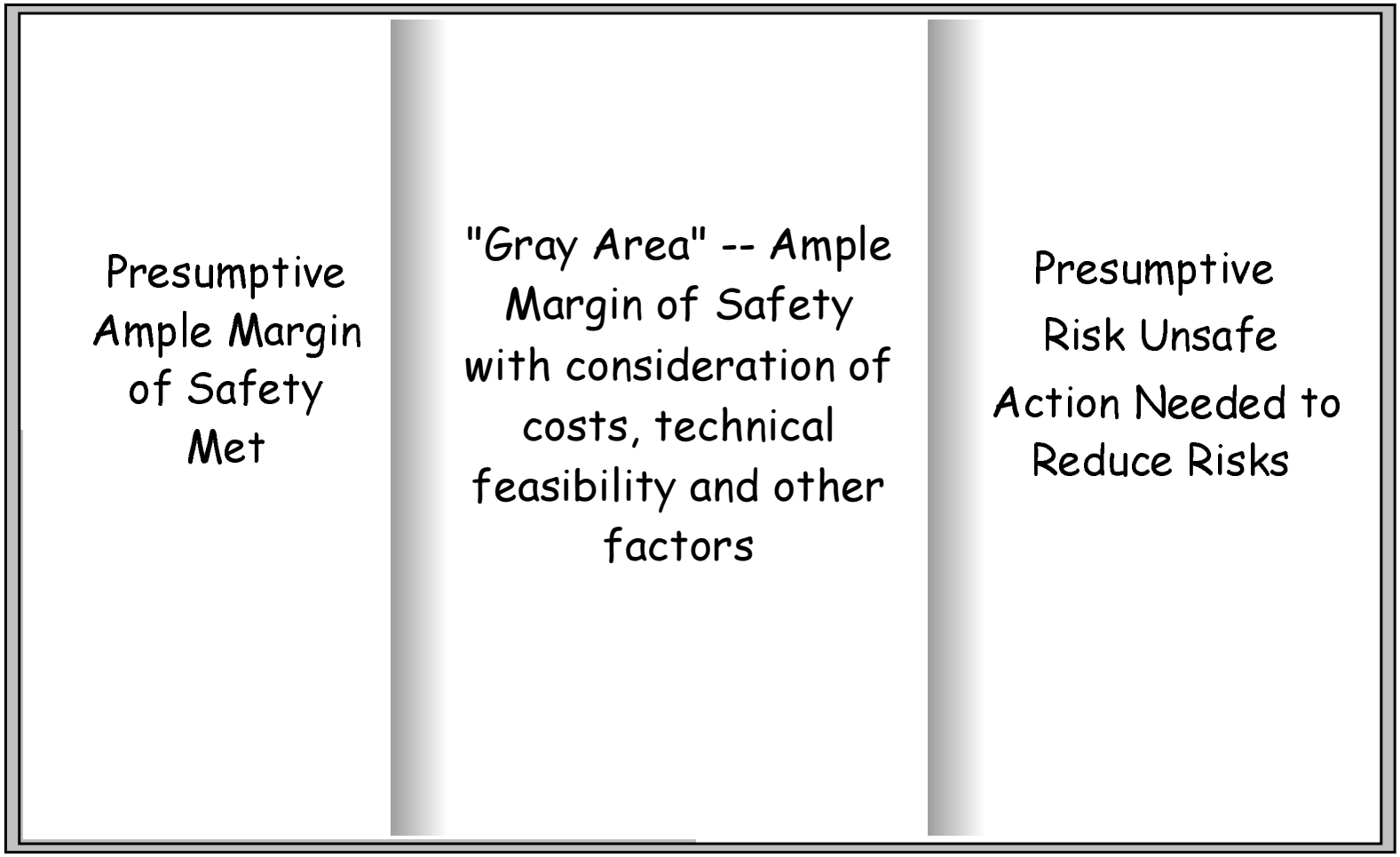


Residual Risk: Tiered Approach

- **Screening analysis -** conservative, relying on readily available information and defaults

- **More refined analyses -**
  - ~ increasingly more resource intensive
  - ~ utilize different tools or data

Benzene NESHAP Risk Ranges



Residual Risk: Early Standard Deadlines

- **Due 2001**
  - Coke Ovens*+
- **Due 2002**
  - Dry Cleaning*
  - Commercial Ethylene Oxide Sterilizers*
  - Gas Distribution*+
  - Halogenated Solvent Cleaning*+
  - Industrial Cooling Towers*+
  - Magnetic Tape*+

* Active Assessments (or will become active in 2002)
\+ Multiple MACTs apply

- **Due 2003**
  - Secondary Pb Smelters*
  - HON*+
  - Chrome Electroplating*+
  - Petroleum Refineries*+
  - Polymers/Resins II+
  - Shipbuilding*+
  - Wood Furniture
  - Marine Vessel Loading*+
  - Aerospace Manufacturing*+
- **Due 2004**
  - Polymers and Resins I, IV+
  - Off-site Waste
  - Printing/Publishing+

Status of Ongoing Risk Assessments

- Dry Cleaners
  - Initial results show elevated residual risks associated with dry cleaners, even for facilities with MACT in place
  - Initiating Agency Work Group to develop non-regulatory approaches for reducing risks from co-located area source perc dry cleaners; Expect majority of effort to be completed by May 2002
  - Gathering further data on identified major source dry cleaners, with help of industry representatives and State agencies; Will perform residual risk assessments on major sources in Spring 2002
  - Will continue to work with the STAPPA/ALAPCO work group and request further ideas for non-regulatory approaches for area source dry cleaners

Status of Ongoing Risk Assessments

- Secondary Lead Smelters
  - Screen complete; analyzing data gathered from industry;designing more refined assessment; more refined assessment to be completed in summer 2002
- Chrome Electroplating
  - Screen complete; more refined complete. Only small subset of sources included in analysis. Next step is to evaluate representativeness of sample.
- Ethylene Oxide Sterilizers
  - Screen complete; will run ISCST+2000 census on improved data mid-2002. ORD updating IRIS assessment of EO. Will use revised values as they become available.

Status of Ongoing Risk Assessments

- Gas Distribution
  - Co-located sources included in petroleum refinery risk assessment; screen complete for stand-alone sources. More refined analysis to be completed summer 2002.
- Halogenated Solvents
  - Screen complete; need to add continuous web cleaners subcategory to analysis and determine if we need to conduct more refined analysis.
- Petroleum Refineries
  - Screen nearly complete; QA/QC'ing results.

Status of Ongoing Risk Assessments

- HON
  - We have just completed risk assessment on 105/238 sources in category using industry supplied data
  - Risk assessment approach
    - HON component only assessed (not whole facility)
    - ICST+2000Census
  - Initial results
    - 10 facilities>10-4
    - ½ of the sample > 10-6
  - We are currently QA/QC'ing results.

Status of Ongoing Risk Assessments

- Coke Ovens
  - Currently being redone with updated data:
    - Modeling 6 batteries at 5 facilities
    - ISCST3 + 2000 census data
    - Ambient concentrations at block and block group levels
    - Quantitative uncertainty and variability for selected parameters

For More Info:

- Visit EPA's Air Toxics Website
  http://www.epa.gov/ttn/atw/index.html

- Contact Region 5
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